

REMARKS

I. Status:

In the outstanding final Office Action, (1) claims 1, 3, 5-7, 9, and 11-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Moriwaki (Japanese Publication No. 7-205244, "Moriwaki '244") in view of Sekido et al. (Japanese Publication No. 7-290548, "Sekido"); (2) claims 1, 3, 5-7, 9, and 11-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Morikawa (Japanese Publication No. 62-187009, "Morikawa"); (3) claims 4 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over either Moriwaki '244 in view of Sekido, or Morikawa in view of Neko et al. (European Patent Publication No. 0 418 398, "Neko"); (4) claims 1, 3-7, and 9-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Neko; (5) claims 1, 3-7, and 9-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Moriwaki (Japanese Publication No. 2001-287254, "Moriwaki '254") in view of Neko; (6) claims 1, 3, 5-7, 9, and 11-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Moriwaki '244 in view of Sekido taken together with Inden et al. (U.S. Patent No. 4,905,165, "Inden") in view of Colorblind Barrier Free ("Colorblind"); (7) claims 1, 3, 5-7, 9, and 11-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Morikawa taken together with Inden in view of Colorblind; (8) claims 4 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over either Moriwaki '244 or Morikawa taken together with Inden in view of Colorblind, and further in view of Neko; (9) claims 1, 3-7, and 9-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Neko taken together with Inden in view of Colorblind; and (10) claims 1, 3-7, and 9-14 were rejected under

35 U.S.C. § 103(a) as being unpatentable over Moriwaki '254 taken together with Neko in view of Inden and Colorblind.

II. The "Marking" Features Should Be Given Patentable Weight:

Applicant respectfully requests favorable reconsideration of the rejections (1) through (5) listed above, which are based on various combinations of Moriwaki '244, Sekido, Morikawa, Neko, and Moriwaki '254, together with a contention that the marking features should not be given patentable weight.

Initially, the Office Action does not allege that any one of Moriwaki '244, Sekido, Morikawa, Neko, and Moriwaki '254 teaches or suggests a waveform monitoring apparatus including "a marking applier, applying a marking to an excess portion of the measured value waveform determined by the determinant . . . wherein the marking is thicker than other portions of the measured value waveform that do not exceed the reference pressure," as recited in independent claim 1, and a method for monitoring a waveform including the step of "applying a marking to an excess portion of the measured value waveform determined in the determinant step . . . wherein the marking is thicker than other portions of the measured value waveform that do not exceed the reference pressure," as recited in independent claim 7. Applicant submits, consistent with the Office Action, that Moriwaki '244, Sekido, Morikawa, Neko, and Moriwaki '254, whether taken alone or in combination, fail to teach or suggest at least these features.

The Office Action contends at pages 3, 5, and 7, however, that "the marking relates to the content of information being displayed rather than any functionality or methodology involved in causing the display itself" and that "[s]uch descriptive material should not be given patentable weight absent a new and unobvious functional

relationship between the descriptive material and the substrate (i.e. display)” based on *In re Lowry*, 32 F.3d 1579, 1583-84 (Fed. Cir. 1994), and *In re Ngai*, 367 F.3d 1336, 1338 (Fed. Cir. 2004). Applicant respectfully disagrees for the reasons set forth below.

First, although *Lowry* does mention that “In *Gulack*, this court concluded that ‘the critical question is whether there exists any new and unobvious functional relationship between the printed matter and the substrate,’” *In re Lowry*, 32 F.3d at 1582 (quoting *In re Gulack*, 703 F.2d 1381, 1386 (Fed. Cir. 1983)), *Lowry* actually supports the proposition that the marking features should be given patentable weight. Specifically, *Lowry* “cautioned against a liberal use of ‘printed matter rejections’ under section 103,” *id.* at 1583, emphasizing that “[a] ‘printed matter rejection’ under § 103 stands on questionable legal and logical footing” and that “printed matter may well constitute structural limitations upon which patentability can be predicated.” *Id.* (quoting *In re Gulack*, 703 F.2d at 1385 n.8). Moreover, the court in *Lowry* actually found that “[t]he PTO did not establish that the ADOs [Lowry’s features analogized to printed matter by the PTO], within the context of the entire claims, lack a new and nonobvious functional relationship with the memory [Lowry’s claimed apparatus]” because they “perform a function in the memory. *Gulack* requires no more.” *Id.* at 1584 (emphasis added).

Just as in *Lowry*, where an “attribute data object” performed a function in the memory by facilitating “addition, deletion, and modification of information stored in the memory,”¹ *id.*, the “marking applier” of claim 1 performs a function in the waveform

¹ Please note that the function relied upon in *Lowry* was not even recited in the representative claim set forth in *Lowry*, see *In re Lowry*, 32 F.3d at 1581, and appears to be inferred from Lowry’s “tangible benefits: data stored in accordance with the claimed data structures are more easily accessed, stored, and erased,” *id.* at 1584.

monitoring apparatus by “applying a marking to an excess portion of the measured value waveform,” and further performs the function of applying a “marking [that] is thicker than other portions of the measured value waveform.” Moreover, such functions have tangible benefits such as “notifying in advance of any nonconforming product,” “eliminat[ing] the need for performing a visual check after the molded products are formed,” and “preventing outflow of nonconforming products.” See Applicant’s specification, p. 13, ll. 1-6.

Second, although *Ngai* affirmed a printed matter rejection, *Ngai*, 367 F.3d at 1339, that rejection was under § 102 rather than § 103, see *id.* at 1338. In light of *Lowry*’s remarks that “[a] ‘printed matter rejection’ under § 103 stands on questionable legal and logical footing” and that “printed matter may well constitute structural limitations upon which patentability can be predicated,” *In re Lowry*, 32 F.3d at 1583 (quoting *In re Gulack*, 703 F.2d at 1385 n.8), it is clear that *Ngai* would not necessarily have been decided as it has in the context of a § 103 rejection. In any event, even assuming that *Ngai* would so have been decided, *Ngai* still clearly indicates that the marking features should be given patentable weight. Specifically, *Ngai* affirmed the printed matter rejection only in an extreme situation where the printed matter, which in *Ngai* was instructions on how to use a claimed kit, was completely unrelated to the claimed kit, i.e., where “the printed matter in no way depends on the kit, and the kit does not depend on the printed matter.” *Ngai*, 367 F.3d at 1339. Here, unlike the printed matter in *Ngai*, the claimed waveform monitoring apparatus depends at least on both the marking applier and on the thicker marking, which yield the tangible benefits mentioned above, and both the marking applier and the marking depend on each other

and on the waveform monitoring apparatus because the marking cannot draw itself and because its shape is based on that of the measured value waveform formed by the determinant of the waveform monitoring apparatus.

Further, *Ngai* makes it even clearer that the marking features should be given patentable weight in its discussion of *Gulack*, where a printed matter rejection was reversed. Specifically, *Ngai* mentions that although “a circular band [as in *Gulack*] with items printed upon it was well known . . . the numbers printed on the band had a functional relationship to the band,” *id.*, because “ . . . (1) the band supports the digits; and (2) there is an endless sequence of digits-each digit residing in a unique position with respect to every other digit in an endless loop. Thus, the digits exploit the endless nature of the band,” *id.* (quoting *In re Gulack*, 703 F.2d at 1386-87). Here, similarly, the waveform monitoring apparatus, the marking applier, and the marking all have functional relationships because the marking is supported by and exploits the wave-shaped nature of the measured value waveform since it can adopt the same wave-shaped form, only thicker (see the non-limiting, exemplary representation in Fig. 3). Furthermore, just as “[i]n *Gulack*, the printed matter would not achieve its educational purposes without the band, and the band without the printed matter would similarly be unable to produce the desired results,” *id.*, the claimed waveform monitoring apparatus would not yield the tangible benefits mentioned above without the marking applier and the marking itself, and the marking on its own could not even exist without the waveform monitoring apparatus and the measured value waveform formed by the determinant of the waveform monitoring apparatus.

Thus, Applicant submits that the “marking applier, applying a marking . . . thicker than other portions of the measured value waveform that do not exceed the reference pressure,” as recited in claim 1, and the step of “applying a marking . . . thicker than other portions of the measured value waveform that do not exceed the reference pressure,” as recited in claim 7, are entitled to patentable weight under both *Lowry* and *Ngai*.

Accordingly, since Moriwaki '244, Sekido, Morikawa, Neko, and Moriwaki '254, whether taken alone or in any combination, fail to teach or suggest at least these features of independent claims 1 and 7, which are entitled to patentable weight, Applicant respectfully requests favorable reconsideration of the rejections (1) through (5) listed above, which are based on various combinations of Moriwaki '244, Sekido, Morikawa, Neko, and Moriwaki '254, along with the inaccurate contention that the marking features should not be given patentable weight.

III. Colorblind Fails to Cure the Deficiencies of the Cited Art:

Applicant respectfully requests favorable reconsideration of the rejections (6) through (10) listed above, which are based on various combinations of Moriwaki '244, Sekido, Morikawa, Neko, Moriwaki '254, Inden, and Colorblind.

Initially, the Office Action does not allege that any one of Moriwaki '244, Sekido, Morikawa, Neko, Moriwaki '254, and Inden teaches or suggests a waveform monitoring apparatus including “a marking applier, applying a marking to an excess portion of the measured value waveform determined by the determinant . . . wherein the marking is thicker than other portions of the measured value waveform that do not exceed the reference pressure,” as recited in independent claim 1, and a method for monitoring a

waveform including the step of “applying a marking to an excess portion of the measured value waveform determined in the determinant step . . . wherein the marking is thicker than other portions of the measured value waveform that do not exceed the reference pressure,” as recited in independent claim 7. Applicant submits, consistent with the Office Action, that Moriwaki '244, Sekido, Morikawa, Neko, Moriwaki '254, and Inden, whether taken alone or in combination, fail to teach or suggest at least these features.

The Office Action contends at pages 9, 10, 12, and 14, however, that Colorblind teaches at page 13 “using lines of different shapes and thickness so as to accommodate people that are color[] blind” and that “[i]t would have been obvious . . . to use a thicker marking for the portion of the measured value outside the high and low limits in Inden [which discloses at c. 5, ll. 41-42, “changing a color of the line of the trend format”] so that a person who is color[] blind can distinguish the change easily.” Applicant respectfully disagrees.

Colorblind discusses the various types of color blindness and proposes a number of ways to make figures and presentations more “friendly” to color blind people. Colorblind does mention at page 13 that “[t]hicker lines and bigger symbols make it easier to distinguish colors. (More cone cells can be used for color detection.)” However, Applicant submits that this is insufficient to render the claims obvious. Even if Colorblind's very general statement were followed, it might prompt one to make the entire line, *in all areas*, thicker, so that a color blind person can better see the colors on both sides of a change of color, but it would not teach or suggest in any way to alter the thickness of a line only in a particular area (and thus to lose the benefits it seeks of

having more cone cells and seeing colors better in the other areas as well). In other words, although Colorblind mentions the general use of thicker lines, it fails to teach or suggest a “marking applier, applying a marking . . . thicker than other portions of the measured value waveform that do not exceed the reference pressure,” as recited in independent claim 1, and the step of “applying a marking . . . thicker than other portions of the measured value waveform that do not exceed the reference pressure,” as recited in independent claim 7.

Accordingly, since Moriwaki '244, Sekido, Morikawa, Neko, Moriwaki '254, Inden, and Colorblind, whether taken alone or in any combination, fail to teach or suggest at least these features of independent claims 1 and 7, Applicant respectfully requests favorable reconsideration of the rejections (6) through (10) listed above, which are based on various combinations of Moriwaki '244, Sekido, Morikawa, Neko, Moriwaki '254, Inden, and Colorblind.

IV. Concluding Remarks:

In view of the foregoing remarks, Applicants respectfully request favorable reconsideration of the outstanding rejections of the pending claims.

Because the Office Action contains characterizations of the claims and prior art with which Applicant does not necessarily agree, Applicant declines to subscribe to any such characterizations unless expressly set forth in this paper.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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